



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,163	10/31/2003	Lance E. Nunley	RD8285USNA	9855

43693 7590 05/02/2006

INVISTA NORTH AMERICA S.A.R.L.  
THREE LITTLE FALLS CENTRE/1052  
2801 CENTERVILLE ROAD  
WILMINGTON, DE 19808

EXAMINER
----------

DEL SOLE, JOSEPH S

ART UNIT	PAPER NUMBER
----------	--------------

1722

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/698,163

Applicant(s)

NUNLEY ET AL.

Examiner

Joseph S. Del Sole

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 5-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/4/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of claims 1-4 in the reply filed on 3/23/06 is acknowledged. The traversal is on the ground(s) that no burden would exist for the examiner. This is not found persuasive because the expanse of subclasses necessary to search for all the inventions is significantly beyond that for a reasonable search.

The requirement is still deemed proper and is therefore made FINAL.

2. The information disclosure statement filed 2/4/04 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered if said information is not initialed and crossed-out.

### ***Specification***

3. The disclosure is objected to because of the following informalities: **a)** the title should be rewritten to reference only the apparatus.

Appropriate correction is required.

### ***Claim Objections***

4. Claims 1-2 and 4 are objected to because of the following informalities: **a)** in claim 1 "said perimeter measure pc, is" should be changed to --said perimeter measure, pc, is-- or --said perimeter measure pc is--; **b)** in claim 2 "said perimeter measure pc, is" should be changed to --said perimeter measure, pc, is-- or --said perimeter measure pc

Art Unit: 1722

is--; c) in claim 3 "a perimeter measure pc, greater" should be changed to --a perimeter measure, pc, greater-- or --a perimeter measure pc greater--. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is vague and indefinite because the limitation "is greater than either of:  $2\pi R$  and  $2\pi r$ ;" is unclear. Stating that the perimeter is greater than either implies that it may be greater than one and not the other. However, it is not possible for the perimeter to be greater than  $2\pi r$  but not greater than  $2\pi R$ .

Claim 2 is vague and indefinite because it is unclear what range of ratios are encompassed by "about 2 to about 10 times greater". The specification does not set forth how different from 2 "about 2" may be and does not set forth how different from 10 "about 10" may be.

Claim 3 is vague and indefinite because it is unclear what range of legs are encompassed by "about 5 to about 12". The specification does not set forth how different from 5 "about 5" may be and does not set forth how different from 5 "about 5" may be.

Art Unit: 1722

Claim 4 is vague and indefinite because it is unclear how different the cross-sectional area of the orifice may be from the cross-sectional area of a circle having a radius R. The term "substantially" due to lack of background in the disclosure, does not set forth a clear difference acceptable for the two areas.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson et al (6,673,442).

Johnson et al teach a melt extrusion spinneret plate (Fig 1B, that which contains the illustrated capillary); having at least one capillary orifice (Fig 1B); the orifice having a perimeter of non-circular cross sectional shape (Fig 1B);

a perimeter measure  $p_c$  (Fig 1B);

an extrusion area, wherein the perimeter measure  $p_c$  is greater than either of  $2\pi R$  and  $2\pi r$  (Fig 1B);

wherein the extrusion area is greater than  $2\pi r^2$  and less than  $2\pi R^2$  (Fig 1B);

Art Unit: 1722

wherein  $r$  is the radius of the largest circle inscribed by the orifice perimeter and  $R$  is the radius of the largest circle circumscribing the orifice perimeter (Fig 1B);

the perimeter measure  $p_c$  is about 2 to about 10 times greater than either of  $2\pi R$  and  $2\pi r$ ; the orifice has 6 radially arranged legs (Fig 1B);

and the orifice has a cross-sectional area substantially the same as that area of a circular cross-section spinneret capillary having a radius  $R$  and, simultaneously, the orifice having a perimeter measure  $p_c$ , greater than the perimeter  $2\pi R$  of the circular cross-section spinneret capillary (Fig 1B).

The Examiner notes that the limitation "for producing at least a single filament of circular cross sectional shape" is a process limitation and that circular filaments can be formed by non-circular orifices depending on the method of extrusion not merely on the shape of the orifice.

9. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Edie (5,154,908).

Edie teaches a melt extrusion spinneret plate (Figs 10a-12a); having at least one capillary orifice (Figs 10a-12a); the orifice having a perimeter of non-circular cross sectional shape (Figs 10a-12a);

a perimeter measure  $p_c$  (Figs 10a-12a);

an extrusion area, wherein the perimeter measure  $p_c$  is greater than either of  $2\pi R$  and  $2\pi r$  (Figs 10a-12a);

wherein the extrusion area is greater than  $2\pi r^2$  and less than  $2\pi R^2$  (Figs 10a-12a);

Art Unit: 1722

wherein  $r$  is the radius of the largest circle inscribed by the orifice perimeter and  $R$  is the radius of the largest circle circumscribing the orifice perimeter (Figs 10a-12a);

the perimeter measure  $p_c$  is about 2 to about 10 times greater than either of  $2\pi R$  and  $2\pi r$ ; the orifice has up to 5, 6 or 8 radially arranged legs (Figs 10a-12a);

and the orifice has a cross-sectional area substantially the same as that area of a circular cross-section spinneret capillary having a radius  $R$  and, simultaneously, the orifice having a perimeter measure  $p_c$ , greater than the perimeter  $2\pi R$  of the circular cross-section spinneret capillary (Figs 10a-12a).

The Examiner notes that the limitation "for producing at least a single filament of circular cross sectional shape" is a process limitation and that circular filaments can be formed by non-circular orifices depending on the method of extrusion not merely on the shape of the orifice. Furthermore Edie teaches explicitly that a non-circular orifice may produce a circular filament depending on the process variables of the process (col 7, line 50 - col 8, line 5). While this may teach away from the intended process of Edie, it does not teach away from the intended structure of Edie and thus the structure of Edie anticipates the structure of the claimed invention.

10. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Wellenhofer et al (4,221,755).

Wellenhofer et al teaches a melt extrusion spinneret plate (Figs 10a-12a); having at least one capillary orifice (Fig 2); the orifice having a perimeter of non-circular cross sectional shape (Fig 2);

a perimeter measure  $p_c$  (Fig 2);

Art Unit: 1722

an extrusion area, wherein the perimeter measure  $p_c$  is greater than either of  $2\pi R$  and  $2\pi r$  (Fig 2);

wherein the extrusion area is greater than  $2\pi r^2$  and less than  $2\pi R^2$  (Fig 2);

wherein  $r$  is the radius of the largest circle inscribed by the orifice perimeter and  $R$  is the radius of the largest circle circumscribing the orifice perimeter (Fig 2);

the perimeter measure  $p_c$  is about 2 to about 10 times greater than either of  $2\pi R$  and  $2\pi r$ ; the orifice has 1-5 radially arranged legs (Fig 2);

and the orifice has a cross-sectional area substantially the same as that area of a circular cross-section spinneret capillary having a radius  $R$  and, simultaneously, the orifice having a perimeter measure  $p_c$ , greater than the perimeter  $2\pi R$  of the circular cross-section spinneret capillary (Fig 2).

The Examiner notes that the limitation "for producing at least a single filament of circular cross sectional shape" is a process limitation and that circular filaments can be formed by non-circular orifices depending on the method of extrusion not merely on the shape of the orifice. Furthermore Wellenhofer in fact teaches the use of the non-circular shape to form circular filaments (col 2, lines 4-28).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph S. Del Sole whose telephone number is (571) 272-1130. The examiner can normally be reached on M-F 8:30 - 5.

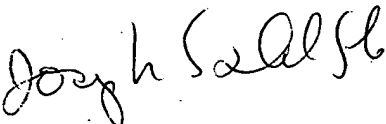
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone



Art Unit: 1722

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Joseph S. Del Sole  
4/28/06